CBL-104/DIV

AMENDMENTS TO THE CLAIMS

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Claim 21. (twice amended) An epitaxial layer, comprising a metal nitride comprising a metal selected from the group consisting of gallium, aluminum and indium, wherein the epitaxial layer is formed by hydride vapor-phase deposition on a buffer layer and wherein the buffer layer comprises a nitride of an element of groups III or IV of the periodic table formed on a substrate by a metal organic chemical vapor deposition (MOCVD) technique ~~other than HVPE~~.

Claim 22. (original) The epitaxial layer of claim 21, wherein said epitaxial layer is removed from said buffer layer.

Claim 23. (original) The epitaxial layer of claim 21, wherein said epitaxial layer and the buffer layer together comprise an epitaxial layer/buffer layer heterostructure, and the epitaxial layer /buffer layer heterostructure is removed from the substrate.

Claim 24. (currently amended) A semiconductor heterostructure, comprising:

a) a nitride buffer layer, said buffer layer formed by MOCVD; and

b) b) ~~an~~ a nitride epitaxial layer deposited on said buffer layer, said epitaxial layer formed by HVPE.

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Claim 25. (original) The heterostructure of claim 24, wherein said buffer layer comprises a material selected from the group consisting of AlN, InN and GaN, and wherein said buffer layer has a thickness in the range of from about 1.0 nanometer to 1.0 micron.

Claim 26. (original) The heterostructure of claim 25, wherein said epitaxial layer comprises a metal nitride comprising at least one metal selected from the group consisting of Ga, Al and In and wherein said epitaxial layer has a thickness in the range of from about 1.0 micron to 500 micron.

Claim 27. (currently amended) An epitaxial layer ~~prepared according to the method of,~~ comprising:

a) ~~forming~~ a buffer layer formed on a substrate by CVD;

b) ~~forming~~ a cap layer formed on the buffer layer; and

c) ~~forming~~ an epitaxial layer formed on the cap layer by hydride vapor-phase epitaxy.

Claim 28. (original) The epitaxial layer of claim 27, wherein the epitaxial layer comprises a nitride comprising an element selected from group III and group IV of the periodic table.

Claim 29. (original) The epitaxial layer of claim 27, wherein the substrate comprises a material selected from the group consisting of sapphire, silicon, silicon carbide, gallium arsenide, zinc oxide and magnesium oxide; and the buffer layer comprises aluminum nitride.

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Claim 30. (original) The epitaxial layer of claim 28, wherein the cap layer and the epitaxial layer have substantially the same composition.

Claim 31. (currently amended) The epitaxial layer of claim ~~26~~, 27 wherein the cap layer and the epitaxial layer each comprise a nitride comprising an element selected from the group consisting of group III and group IV elements of the periodic table.

Claim 32. (original) The epitaxial layer of claim 27, wherein the cap layer is formed by MOCVD.